

FINAL EXAM
JUNE 2012

NATIONAL BOARD OF EXAMINATIONS

ANAESTHESIOLOGY**PAPER- I****Time: 3 hours**
Max. Marks : 100**ANS/J/12/01/I****Attempt all questions in order.**
Each question carries 10 marks.

1. What is the differential diagnosis of intra-operative bronchospasm? How will you manage it? 3+7
2. Discuss indications and techniques of renal replacement therapy. Discuss role of CRRT in septic shock. 5+5
3. Enumerate various approaches for central venous cannulation. Describe the technique and complications of internal jugular venous cannulation. 2+(4+4)
4. Discuss the regulation of intracranial pressure. Describe the methods available for reducing it under anaesthesia. 5+5
5. Discuss indications, technique and complications of caudal epidural block in children. 3+4+3
6. Define monitored anaesthesia care. Discuss its goals and techniques. 2+(3+5)
7. Discuss the perioperative problems and anaesthetic management of a one year old child with hydrocephalus scheduled for shunt procedure. 5+5
8. Discuss pharmacokinetics and pharmacodynamics of dexmedetomidine. What is its role in clinical practice? 5+5
9. Define and classify dead space ventilation. Define minute ventilation. Under what conditions is minute ventilation increased? 5+2+3
10. Discuss the pre-operative evaluation of a patient with ischaemic heart disease. Discuss the perioperative monitoring for myocardial ischaemia and its management. 4+(3+3)

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ANAESTHESIOLOGY

PAPER- II

Time: 3 hours
Max. Marks : 100

ANS/J/12/01/II

Attempt all questions in order.
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1. How would you assess a case of septic shock due to pancreatitis? 4+6
Briefly discuss its management.
2. Discuss the various criteria for weaning a patient from prolonged 10
mechanical ventilation.
3. What are the physiological functions of magnesium? Describe its 5+5
therapeutic uses in anaesthesia.
4. Describe the anatomy of larynx and its innervation. What are the 4+3+3
differences between neonatal and adult larynx?
5. What are the different types of carbon dioxide absorbents? Describe 3+3+4
their composition. Discuss the advantages and disadvantages of each.
6. What are the objectives of premedication in a patient scheduled for 4+6
elective caesarean section? Describe the drugs used with their doses
and rationale.
7. Briefly outline the evaluation and management of a patient with 4+6
suspected perioperative coagulopathy.
8. Discuss the preoperative evaluation of a 25 year old man with 5+5
obstructive sleep apnea scheduled for laparotomy. How would you
prepare him for surgery?
9. Describe the toxicity of commonly used local anaesthetic agents and its 5+5
management.
10. Discuss the anaesthetic problems in robotic surgery. 10

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ANAESTHESIOLOGY**PAPER- III****ANS/J/12/01/III****Time: 3 hours****Max. Marks : 100****Attempt all questions in order.****Each question carries 10 marks.**

1. Discuss the preoperative evaluation and anaesthetic management of a 70 years old hypertensive patient for total laryngectomy. 5+5
2. Discuss the etiology and management of supra ventricular arrhythmias during surgery under general anaesthesia. 4+6
3. What are the clinical features of Myasthenia Gravis? Discuss perioperative evaluation and anaesthetic management of a case presenting for Interval Appendicectomy. 3+(3+4)
4. What are the various routes of administration of morphine? Discuss the pharmacokinetics and pharmacodynamics of epidural morphine. 2+(4+4)
5. Discuss preoperative evaluation and anaesthetic management of a 40 years old hyperthyroid patient posted for total thyroidectomy. Enumerate postoperative complications. (3+4)+3
6. What is capnography? Draw a labeled diagram of normal capnograph and discuss clinical considerations of capnography (EtCo₂ monitoring). 2+(3+5)
7. Discuss causes, clinical manifestations and treatment of hypercalcemia. What are their anaesthetic considerations? (2+2+2)+4
8. Discuss the criteria for patient selection, contraindications, advantages and disadvantages of autologous blood transfusion. 3+3+2+2
9. How would you evaluate and prepare a patient with chronic bronchiectasis scheduled for pneumonectomy? Briefly enumerate the postoperative complications. 7+3
10. Describe the counter current mechanism in the kidney. Discuss the renal protection strategies during perioperative period. 4+6

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ANESTHESIOLOGY**PAPER- IV****Time: 3 hours**
Max. Marks : 100**ANS/J/12/01/IV****Attempt all questions in order.**
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1. Enumerate the safety features in a modern anesthesia machine. 5+5
Describe the hypoxia prevention safety devices.
2. How is autonomic neuropathy evaluated preoperatively? What is its 5+5
significance in anesthesia?
3. Discuss the different types of colloid solutions. Describe their 5+5
advantages and disadvantages.
4. Discuss the signs and symptoms, pathophysiology and management of 3+3+4
cyanide toxicity.
5. Describe anatomy of paravertebral space with diagram. Describe one 5+5
method of establishing paravertebral block.
6. What are the anaesthetic considerations for day care surgery? Discuss 2+(2+6)
the clinical criteria for recovery and discharge after day care surgery.
7. Classify hypothermia. Describe the pathophysiological effects of 3+7
hypothermia.
8. Describe Bernoulli's principle and its various applications in anaesthesia. 5+5
9. Explain the term 'Complex Regional Pain Syndrome (CRPS)'. What are 2+2+6
the types of CRPS? Describe its clinical features and options for
treatment.
10. Enumerate the environmental hazards in the operation theatre and 4+6
discuss the methods for its prevention.

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